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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

BARBER, THERESE

ART UNIT PAPER NUMBER

2882

DATE MAILED: 10/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/089,112

Applicant(s)

EGNELL ET AL.

Examiner

Therese Barber

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 June 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 8 is/are rejected.
- 7) ☒ Claim(s) 2-7 and 9-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 June 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other: _____

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 371 and 37 CFR 1.494.

Drawings

2. The drawings filed on 26 June 2002 have been approved by the Draftsperson.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Zhong (IEEE, Vol. 1, pages 556-560).
5. Regarding claim 1, Zhong discloses an add/drop node connected to an optical WDM network (page 556, paragraph 2 - "Introduction", lines 1-5), wherein the network includes two optical fiber paths for letting light of a plurality of channels propagate in opposite directions (page 556, col. 2, paragraph 2 - "Two-Fibre..Architecture", lines 1-5), wherein the add/drop module is comprised of an add device for adding light to the first of the two optical fiber paths

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and a drop device for deflecting a portion of light from the second of the two optical fiber paths different from the first one and all add/drop modules having the same construction (page 557, col. 1, the last paragraph, lines 1-18).

Regarding claim 8, Zhong discloses the limitations as stated above in claim 1. In addition, Zhong discloses at least one add/drop module connected to the two optical fiber paths (Fig. 1).

Zhong fails to teach two add/drop modules for each of the channels in an optical WDM network.

However, Zhong discloses having an add/drop module as stated above (page 557, col. 1, the last paragraph, lines 1-18), wherein the single add/drop module has excellent crosstalk performance and can increase the total switching capacity fourfold in comparison with a uni-directional WDM ring network (page 556, col. 2, paragraph 1, lines 11-17).

It would have been obvious to one having ordinary skill in the art at the time the invention was made that the single add/drop module as taught by Zhong is changed to a double add/drop module configuration in a bi-directional WDM network. Accordingly, the resultant structure will have excellent crosstalk performance and can increase the total switching capacity of the bi-directional WDM network.

6. Regarding claim 8, Zhong discloses an add/drop node connected to an optical WDM network (page 556, paragraph 2 - "Introduction", lines 1-5), wherein the network includes two optical fiber paths for letting light of a plurality of channels propagate in opposite directions (page 556, col. 2, paragraph 2 - "Two-Fibre..Architecture", lines 1-5), wherein the add/drop

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module is comprised of an add device for adding light to the first of the two optical fiber paths and a drop device for deflecting a portion of light from the second of the two optical fiber paths different from the first one and all add/drop modules having the same construction (page 557, col. 1, the last paragraph, lines 1-18). In addition, Zhong discloses at least one add/drop module connected to the two optical fiber paths (Fig. 1).

Zhong fails to teach two add/drop modules for each of the channels in an optical WDM network.

However, Zhong discloses having an add/drop module as stated above (page 557, col. 1, the last paragraph, lines 1-18), wherein the single add/drop module has excellent crosstalk performance and can increase the total switching capacity fourfold in comparison with a uni-directional WDM ring network (page 556, col. 2, paragraph 1, lines 11-17).

It would have been obvious to one having ordinary skill in the art at the time the invention was made that the single add/drop module as taught by Zhong is changed to a double add/drop module configuration in a bi-directional WDM network. Accordingly, the resultant structure will have excellent crosstalk performance and can increase the total switching capacity of the bi-directional WDM network.

Allowable Subject Matter

7. Claims 2-7 and 9-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claims 2-7 and 9-14, the claims are allowable over the prior art of record if

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rewritten for at least the reason that although the prior art discloses an add/drop node connected to an optical WDM network, the prior art fails to teach or to reasonably suggest the add/drop modules of the optical WDM network having the specific arrangement for connecting the optical fiber paths to the add/drop modules, for changing the channels in the optical WDM network, and for adding/dropping the channels used in the optical WDM network, as set forth in the claimed combination.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Asahi (USPN 6,195,186 B1) discloses an optical ring network having an even number of optical fibers wherein each pair of the optical fibers forms a bi-directional transmission line and a plurality of nodes are coupled through the optical fibers in the ring topology, wherein each of the nodes includes an even number of interfaces coupled to the optical fibers and an even number of optical transceivers, whereby by each optical transceivers is comprised of an optical transmitter and an optical receiver, wherein each of the optical transmitter and the optical receiver is coupled to a selected one of the interfaces and the node is provided with a switch for changing the combination of an interface and each of the optical transmitter and the optical receivers.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Therese Barber whose telephone number is (703) 306-0205. The examiner can normally be reached on Monday to Friday from 8:30 a.m. to 6:00 p.m..

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on (703) 308-4858. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4900.

tb 
24 September 2003



DAVID V. BRUCE
PRIMARY EXAMINER